



Price: \$2,295
Length: 35 Hours (5 days)

Introduction: This 5-day instructor led provides SharePoint developers the information needed to implement SharePoint solutions using Enterprise Search, Managed Metadata Service (MMS), Business Connectivity Services (BCS), Enterprise Content Management (ECM), Web Content Management (WCM), Social Computing features and SharePoint Apps.

Target Audience: The course is intended for professional developers who develop solutions for SharePoint products and technologies in a team-based, medium-sized to large development environment. The course is ideally suited to SharePoint developers who have gained some experience with SharePoint 2013 and who are looking to build on their existing skills.

Prerequisites:

- Completed course 20488: Developing Microsoft SharePoint Server 2013 Core Solutions (or equivalent knowledge).
- A working knowledge of using Visual Studio 2010 or Visual Studio 2012 to develop solutions.
- A basic working knowledge of SharePoint solution development, either in SharePoint 2013 or in earlier versions of SharePoint.
- A working knowledge of Visual C# and the .NET Framework 4.5.
- A basic understanding of ASP.NET and server-side web development technologies, including request/response and the page lifecycle.
- A basic working knowledge of client-side web technologies including HTML, CSS, and JavaScript.

Objectives: At the end of the course, students will be able to:

- Describe the apps for SharePoint development platform.
- Use the client-side object models and the REST API to communicate with SharePoint.
- Configure security for apps for SharePoint.
- Optimize the performance of apps for SharePoint.
- Explain the capabilities and applications of managed metadata in SharePoint 2013.
- Automate the creation and configuration of managed metadata term sets.
- Interact with managed metadata term sets and fields from client-side and server-side code.
- Describe the SharePoint 2013 Search Architecture.
- Build simple and advanced KQL Queries.
- Describe the SharePoint Search Index.
- Describe and work with crawled and managed properties.
- Describe the levels and security of the SharePoint Search Schema.
- Create various types of result sources
- Create basic and complex query transforms
- Configure query rule conditions and actions to target query intent
- Create and modify result types
- Create and modify display templates
- Utilize display templates with various search web parts
- Add managed properties as refiners with counts
- Utilize entity extraction in your crawls
- Extend content processing with Content Enrichment
- Describe how to utilize the Publishing API to access publishing settings and content.
- Describe how to use and customize page content controls in publishing sites.



- Configure website structure and navigation.
- Describe the difference between structured and metadata navigation.
- Utilize basic publishing features of SharePoint.
- Use the new cross-site publishing features of SharePoint 2013.
- Configure and implement variations for multilingual sites.
- Configure search engine optimization settings.
- Add SEO Properties to publishing pages and Managed Navigation terms.
- Configure caching to improve site rendering performance.
- Optimize site assets and resources to maximize performance.
- Describe the key components of Business Connectivity Services in SharePoint Server 2013.
- Create and configure BDC models by using SharePoint Designer.
- Create and configure BDC models by using Visual Studio 2012.
- Describe BCS Connector Framework scenarios.
- Design and Develop BCS Connector stereotyped operations.
- Design and Configure BDC model security.
- Optimize Search Connector crawl performance.
- Use Visual Studio to build BDC Models for Search.
- Deploy BDC Search connectors.
- Debug and troubleshoot your search connectors.
- Design and deploy BDC event subscriber methods.
- Describe how to format event notification messages.
- Configure alerts and event receivers on external lists.
- Explain how user profile data is used in SharePoint.
- Describe the options and restrictions for accessing user profile data.
- Use client-side code to access and server-side code to access and update user profile data.
- Configure and manage user profile properties.
- Describe how to identify, diagnose, and remove bugs in SharePoint apps during development.
- Describe how to record information about issues that arise in deployed SharePoint apps.
- Describe how developers optimize the performance of SharePoint apps by implementing best practices, measuring performance, and load testing.

Course Outline

I. Creating Robust and Efficient Apps for SharePoint

- A. Apps for SharePoint
- B. Communicating with SharePoint from an App
- C. Authenticating and Authorizing Apps for SharePoint
- D. Designing Apps for Performance

II. Developing Managed Metadata Solutions

- A. Managed Metadata
- B. Configuring Managed Metadata Term Sets
- C. Working with Managed Metadata Fields

III. Interacting with the Search Service

- A. Understanding the SharePoint 2013 Search Service
- B. Building Search Queries with KQL and FQL
- C. Executing Search Queries from Code

IV. Customizing the Search Experience

- A. Customizing Query Processing
- B. Customizing Search Results
- C. Customizing Content Processing



V. Implementing Enterprise Content Management

- A. Working with eDiscovery
- B. Working with Content Management
- C. Automating Records Management

VI. Developing a Publishing Site for Web Content

- A. Programming with the Web Content Publishing API
- B. Developing Page Components for Web Content Publishing

VII. Structuring and Publishing Websites for All Users

- A. Website Structure and Navigation
- B. Publishing Content
- C. Publishing to Mobile Devices
- D. Multi-language sites using Variations

VIII. Developing Optimized Internet Sites

- A. Optimizing a SharePoint Site for Search Engines
- B. Optimizing Performance and Scalability

IX. Working with Business Connectivity Services

- A. Business Connectivity Services in SharePoint 2013
- B. Creating BDC Models in SharePoint Designer
- C. Creating BDC Models in Visual Studio 2012

X. Creating Advanced Business Data Connectivity Models

- A. Configuring BDC Models for Search
- B. Developing Custom Connectivity Components
- C. Working with External Events and Notifications

XI. Working with Business Data

- A. Working with Business Data in Composite Solutions
- B. Working with Business Data in Custom Solutions
- C. Working with Business Data in Client Applications

XII. Managing and Accessing User Profile Data

- A. Overview of User Profile Data in SharePoint 2013
- B. Understanding Options for Accessing User Profile Data
- C. Managing User Profile Data
- D. Managing User Profile Properties

XIII. Customizing the Social Workload

- A. Overview of the Social Workload
- B. Developing Social Solutions
- C. Working with Feeds

XIV. Monitoring and Troubleshooting Custom SharePoint Solutions

- A. Debugging SharePoint Apps in Visual Studio
- B. Diagnosing Faults in Deployed Apps
- C. Testing Performance and Scalability